

The Industrial Resources Company

CURRENT FACTS 1969

AR45





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Financial Highlights: Four Years In Brief

Year Ended September 30

As Originally Reported to Shareholders

Net sales and operating revenues

Cash flow—net income plus depreciation, etc.

Net income

Income per common share

Adjusted for Poolings of Interests*

Net sales and operating revenues

Cash flow - net income plus depreciation, etc.

Net income

Income per common share

Cash dividends paid per common share

Shares of common stock outstanding:

At end of period

Average number during period

Capital additions

Net worth at end of year

Refined products sold (barrels per day)

Crude oil refined (barrels per day)

Number of shareholders

Number of employees

^{*}These figures reflect the restatement of prior years to include the sales and earnings, as well as the securities issued for other companie acquired in all of the years on a pooling of interests basis.

1968	1967	1966	1965
1,068,442,861	\$804,892,498	\$699,308,039	\$447,743,776
96,612,496	\$ 82,295,568	\$ 77,161,050	\$ 57,515,478
48,340,156**	\$ 44,541,674	\$ 42,924,420	\$ 31,594,004
\$2.29**	\$2.36	\$2.40	\$2.01
1,068,442,861	\$953,428,053	\$853,607,531	\$709,167,862
96,612,496	\$ 90,073,992	\$ 85,333,411	\$ 71,293,261
48,340,156**	\$ 48,384,337	\$ 48,089,182	\$ 38,116,913
\$2.29**	\$2.41	\$2.48	\$2.05
\$1.20	\$1.15	95¢	77½¢
20,522,809	19,314,390	18,684,681	17,965,664
20,207,972	19,117,174	18,426,501	17,600,164
84,887,496	\$ 74,036,345	\$ 60,762,321	\$ 45,010,287
351,232,833	\$311,794,338	\$272,238,266	\$244,914,972
240,074	233,576	215,153	197,634
211,162	206,642	183,276	166,325
52,761	53,165	52,120	50,848
17,000	14,500	12,200	11,100

^{**}Reflects extraordinary charge of \$4,019,782 or 20¢ a common share for writeoff of California oil and gas leases.

OPERATIONS

REFINING

Ashland operates six refineries whose capacities, as of September 30, 1968, were:

Ashland, Ky. — 110,000 barrels a day. Canton, Ohio — 41,000 barrels a day. Buffalo, N.Y. — 39,000 barrels a day. Louisville, Ky. — 20,000 barrels a day. Findlay, Ohio — 18,000 barrels a day. Freedom, Pa. — 5,000 barrels a day.

Facilities under construction at the end of 1968 are designed to increase the capacities of the Ashland, Canton and Buffalo refineries to 120,000, 60,000 and 50,000 barrels a day respectively.

These facilities were expected to be in operation before mid-1969, giving Ashland a total refining capacity of 273,000 barrels of crude oil a day.

In 1968 Ashland processed more than 77 million barrels of crude oil; the average per day was 211,162 barrels.

Production includes a wide range of products. Among these are gasoline, jet fuel, aromatic solvents and naphthas, kerosine, distillates, fuel oil, petrochemicals and asphalt.

At the end of the 1968 fiscal year Ashland had available, from its own Western Hemisphere production and under purchase agreements with others, approximately 310,000 barrels of crude oil a day, including about 20,000 barrels a day for seasonal needs in connection with asphalt production. Crude oil not required for Ashland's needs is sold to other companies.

MARKETING

Historically Ashland's principal marketing area for gasoline and fuel oils has included most of the region from the Mississippi River to the Appalachians and from the Great Lakes to central Tennessee. Sales of gasoline under the Ashland brand name are in a 10-state area; the company's distribution of unbranded gasoline and fuel oils has been expanded in recent years to include large portions of the Eastern Seaboard and southeastern United States.

At the end of 1968 Ashland was marketing petroleum products through 228 bulk plants, of which 188 were owned and the remainder leased, and was serving some 3,000 service stations selling under Ashland brand names.

- Petroleum products sales during 1968 reached a record volume of 3.69 billion gallons, equal to 240,000 barrels a day. Gasoline sales averaged 120,000 barrels a day, with the year's total exceeding 1.8 billion gallons.
- The major portion of Ashland's production of gasoline, kerosine and light fuel oils is sold at wholesale to about 1,000 distributors and independent jobbers who resell through several thousand outlets under Ashland's or their own brand names.
- In connection with its petroleum products sales, Ashland markets—through branded stations and independent jobbers and distributors as well — a complete line of tires, batteries and automotive accessories manufactured by other companies.
- Sales of asphalt for highway construction and other paving purposes, for roofing and other applications continue to be an important part of operations.

Two widely-known Ashland divisions are engaged in the marketing of petroleum products. They are —

VAEVOLINE OIL COMPANY — 1401 Winchester Avenue, Ashland, Ky. 41101.

This division is the manufacturer and marketer of a wide variety of automotive, industrial, marine and aviation lubricants and rust preventives, with sales in 67 countries around the world. Valvoline Oil is the successor to an oil company established in 1866. Valvoline products are sold through an estimated 35,000 dealers in the United States; overseas operation include plants and major distribution facilities in the United Kingdom, Netherlands, Venezuela, South Africa and Australia.

ALLIED OIL COMPANY — 1700 Standard Building, Cleveland, Ohio 44101

An important supplier of fuel oil to the steel industry and other heavy industry of the Ohio Valley and Great Lakes regions.

Another Ashland firm is engaged primarily in tire marketing and associated operations. It is —

O. K. TIRE AND RUBBER COMPANY, INC.—5261 South Rio Grande Avenue, Littleton, Colo. 80121.

Marketing through more than 1,000 franchised dealers, this company sells its own brands of tires and nationally-known brands as well; makes tire recapping, repairing and servicing equipment; and manufactures tread rubber at plants at Goldendale, Wash., and Guntersville, Ala. It also markets automotive accessories purchased from others. O. K. Tire stores are located in many states in the Southeast, Midwest, Rocky Mountain and Northwestern regions and in western Canada.

CHEMICALS

ASHLAND CHEMICAL COMPANY — 8 East Long Street (P.O. Box 2219), Columbus, Ohio 43216.

Ashland Chemical was established in 1967 as a division of Ashland Oil & Refining Company. This new organization, which has sales of more than \$300 million a year, now has eight operating divisions. They are:

Rubber. Operates from divisional headquarters in the Chamber of Commerce Building (P.O. Box 1503) Houston, Texas 77001. Domestic carbon black plants located at Aransas Pass, Texas, Belpre, Ohio, Eunice, N. M., Franklin, La., Mojave, Calif., and Shamrock, Texas; these have combined capacity for the production of nearly 700 million pounds of furnace and channel carbon blacks a year. Overseas operations include interests in plants at Altona, Australia; Port Jerome, France; Bombay, India; Valencia, Venezuela; and part ownership of a plant in Spain being completed in 1969. The division operates a synthetic rubber plant at Baytown, Texas, that manufactures synthetic rubber-carbon black masterbatches and specialty latex materials.

Petrochemicals. Operates from divisional headquarters at 1409 Winchester Ave., Ashland, Kentucky 41101. Responsible for the marketing of benzene, toluene, xylene, naphthalene, aliphatic and aromatic solvents, cyclohexane, propylene, petroleum pitch, cumene, petroleum coke and other products produced at facilities associated with Ashland's Catlettsburg, Ky., and Buffalo, N.Y., refineries.

Industrial Chemicals & Solvents. Responsible for the marketing of solvents and a wide variety of chemicals, with plants located in industrial centers across the United States and in Canada. Many of this division's products are purchased from others for resale. Bulk plants are located at Akron, Ohio; Ashland, Ky.; Bellaire, Ohio; Binghamton, N.Y.; Buffalo, N.Y.; Chicago, Ill.; Cincinnati, Ohio; Cleveland, Ohio; Columbus, Ohio; Dallas, Texas; Dayton, Ohio; Decatur, Ill.; Detroit, Mich.; Erie, Pa.; Houston, Texas; Huntington, W. Va.; Indianapolis, Ind.; Johnstown, N.Y.; Kansas City, Mo.; Lansing, Mich.; Los Angeles, Calif.; Louisville, Ky.; Memphis, Tenn.; Newark, N. J.; Oklahoma City, Okla.; Pittsburgh, Pa.; Rensselaer, N.Y.; San Francisco, Calif.; St. Louis, Mo.; South Bend, Ind.; Syracuse, N.Y.; Toronto, Ontario; Tulsa, Okla.; Westfield, Conn.

Resins & Plastics. This division makes and sells a wide variety of resins, industrial plastics and related products. Plants are located at Bethel, Conn.; Calumet City, III.; Fords, N. J.; Los Angeles, Calif.; Newark, N. J.; Paramount, Calif.; Pensacola, Fla.; Thomasville, N. C.; Valley

Park, Mo. Its specialty resins include phenolic, cresylic, urea, Melamine, resorcinol and acrylic types, water-extended polyester and thermoplastic color concentrates; coating resins are alkyd, polyester, polyurethane, phenolic and acrylic types, hard resins, ester gums, copolymer resin, water soluble resin and polyester-epoxy systems.

chemical Products. In general this division makes and markets fatty acid products, antioxidants, dye intermediates and many types of specialty chemicals. Its plants are located at Mapleton, near Peoria, III.; Great Meadows, N. J., and Willow Island, W. Va. The latter facility, which makes melamine, will be discontinued following completion of a new \$16 million melamine plant, using urea as a feedstock, which will be built at Donalsonville, La., as a joint venture with another company.

Foundry Products. Operates from divisional headquarters at 2191 West 110th St., Cleveland, Ohio 44102, and markets phenolic resin binders, sand stabilizers, bentonite and other products used by the foundry industry. It has two manufacturing plants in Cleveland, bentonite mining and processing plants at Colony and Upton, Wyo., and a plant at Hansford, W. Va., for processing seacoal, bituminous coal specially prepared for foundry use. In 1968 this division introduced the Ashland Process, a patented "cold box" system for producing metal castings that utilizes chemicals rather than heat for curing.

International. This division operates an Export Department from Columbus, and handles relationships with wholly-owned subsidiaries in Canada and Great Britain and with affiliates and associates in Australia, Belgium, Colombia, France, Germany, Holland, Italy, Mexico, Spain, Sweden and Venezuela. It also handles licensing agreements in effect with companies in India and the Philippines. Resins and plastics are manufactured at affiliated plants in eight of these countries.

Fabricated Products. This Ashland Chemical division, established late in 1968, includes the operations of Southern Fiber Glass Products, Inc., Tri-State Plastic Molding Company, and Kyova Pipe Company. Southern Fiber Glass, with principal operations at Sanford, Florida, manufactures Cobia® and Cobra® fiber glass pleasure boats with models from 14 to 27 feet in length. In 1968 this firm began making 72-foot fiber glass fishing trawlers and 22-foot houseboats in addition to the widely-distributed pleasure boats. Kyova Pipe has its manufacturing plant and sales offices at Ironton, Ohio; it makes and markets petroleum pitch-impregnated fiber pipe for sewage and drainage applications and for electrical conduit. It also markets plastic pipe and conduit manufactured by others. Tri-State Plastic Molding has its head-

quarters and manufacturing operations at Henderson, Kentucky; it produces a wide variety of household and commercial plastic items and does custom molding of plastics.

Also a part of Ashland Oil & Refining Company's chemical operations is —

F. H. ROSS & COMPANY — P.O. Box 1750, Charlotte, N. C. 28201.

Distributor of chemicals and solvents throughout the Southeast, with 18 office-warehouses in eight states. Operates more than 550,000 square feet of warehouse space, 200 truck delivery fleet. Its Chemical Division serves more than 10,000 customers with a wide range of chemical products. The Laundry & Drycleaning Division handles all types of supplies for commercial laundries, drycleaners, rug cleaners and similar businesses.

Another division associated with petrochemicals is —

WANDA PETROLEUM COMPANY — P.O. Box 53120, Houston, Texas 77052.

Wholesaler and transporter of natural gas liquids, with gas fractionating plants at Hainesville and Pierce Junction, Texas; one-third owner of the Gulf Coast area "Promix" pipeline system and its Breaux Bridge, La., fractionating plant. Owns or controls more than 8,100,000 net barrels of underground storage capacity for natural gas liquids. Operates an extensive truck fleet and leases more than 700 railway tank cars for transporting these liquids.

TRANSPORTATION

Ashland's transportation network is varied, extensive, versatile and efficient.

- Ashland owns, leases or has long-term arrangements for the use of approximately 5,600 miles of crude oil and refined products pipelines. About 4,300 miles of these lines are wholly-owned crude oil pipelines.
- The company is the largest interest-holder in Capline, the 40-inch diameter crude oil pipeline that extends from southern Louisiana to west-central Illinois. From Capline's northern terminus at Patoka, III., the company has a 20-inch diameter leased line extending to its river terminal at Owensboro, Ky. Both of these lines were completed during 1968.
- Ashland operates the largest fleet of towboats and barges on the Inland Waterways for the bulk transportation of liquids; its facilities, which include 18 river terminals, provide a comprehensive system of low-cost transportation for both crude oil and refined products.
- Cleveland Tankers, Inc., a wholly-owned subsidiary, owns and operates on the Great Lakes seven tankers with a total gasoline capacity of 242,000 barrels.

This constitutes the largest tanker fleet on the Great Lakes.

Ashland owns 160 and leases approximately 1,900 railroad cars, and has an extensive fleet of tractor-trailer units, tank trucks and other automotive equipment.

EXPLORATION & PRODUCTION

Domestic Headquarters, P.O. Box 18695, Oklahoma City, Okla. 73118; Foreign Operations & Acquisitions Headquarters, P.O. Box 1503, Houston, Texas 77001.

- Division offices at Oklahoma City, Okla.; Houston, Texas; Evansville, Ind.; Calgary, Alberta, Canada.
- and other petroleum liquids in fiscal 1968 was 4,576,602 barrels from United States leases in which Ashland has an interest, and 3,203,048 barrels from leases in Canada and Venezuela.
- Daily average net production of crude oil for the fiscal year in the Western Hemisphere was 20,507 barrels (before deduction of Venezuelan exploitation tax), of which 11,777 barrels were produced in the United States, 2,959 barrels in Canada, and 5,771 barrels in Venezuela.
- Ashland is active in leading North American production areas, including offshore California and offshore Texas. The company owns 10.79% interest in two 25,000 acre concessions in Venezuela; Ashland estimates its portion of the net proved reserves from presently productive wells in the Lake Maracaibo concession to be approximately 12,279,000 barrels as of Sept. 30, 1968.
- Ashland owns a 14.13% stock interest in American Independent Oil Company (Aminoil), which holds an undivided half-interest in a 2,600 square mile concession in the Kuwait-Saudi Arabia Neutral Zone and has an interest in the Iranian Consortium. During fiscal 1968 Ashland's interest in Aminoil production was the equivalent of 11,218 barrels of crude oil a day.
- Ashland and Whitestone Petroleum Corp. are joint owners of Circle Oil Co., S. A., which holds three concessions totaling three million acres in Libya. Extensive geological studies of these properties are in progress.
- Ashland holds an undivided one-third interest in a concession covering approximately 60,-000 square miles offshore the Island of Java in Indonesia. Seismic evaluation of this area is in progress.
- Late in 1968 Ashland was awarded a petroleum concession covering about 1,100 square

miles in the Sultanate of Brunei, in the northern part of Borneo. An exploration program is expected to be undertaken in 1969.

The company has inaugurated an exploration program for a wide variety of basic metals and minerals. This program involves searches for sources of molybdenum, zinc, copper, nickel and other materials in the United States and Canada, for bentonite in the United States, and for sulfur in southern Mexico.

CONSTRUCTION AND CONSTRUCTION MATERIALS Ashland operations in this area are carried on largely by two companies. They are—

WARREN BROTHERS COMPANY — 675 Massachusetts Avenue, Cambridge, Mass. 02139.

This company is engaged in the highway paving, construction, and construction materials business; its operations extend over much of the nation and to four Canadian provinces. It installs asphaltic and portland cement concrete surfacing for highways, airports, parking areas and other purposes. At the end of 1968 it operated about 140 asphaltic, ready-mix and portland cement concrete batching plants and several stabilized base mixing plants; about one-third of these are portable facilities. Associated with the Warren Brothers organization and under its management are a number of companies, including Arkhola Sand & Gravel, Ft. Smith, Ark.; Yahola Sand & Gravel, Muskogee, Okla.; P. R. Boston, Inc., North Berwick, Maine; Columbia Bitulithic, Ltd., Vancouver, B.C; MacDougald-Warren, Inc., Atlanta, Ga.; Magaw Construction, Richmond, Ind.; Muncie Paving Asphalt, Muncie, Ind.; Thompson-Arthur Paving, Greensboro, N. C.; Trotti & Thompson, Inc., Beaumont, Texas; Warren Bituminous Paving Co., Ltd., Downsview, Ont. (with several operating districts and subsidiaries in Canada), Warren Brothers operating districts are located at Birmingham, Ala.; Middletown, Del.: Fort Myers, Jacksonville and Sarasota, Fla.: Gilbertsville, Ky.; New Orleans, La.; Benton and Portland, Maine; Acushnet, Brockton and Saugus, Mass.; Columbus, Greenville and Jackson, Miss.; St. Louis, Mo.; Newark and Prospect Park, N. J.; Baldwin, L. I., Clockville, Fayette and Syracuse, N. Y.; Asheville and Winston-Salem, N. C.; Knoxville, Memphis, Nashville and Richardson Landing, Tenn.; Dallas, Fort Worth and Houston, Texas.

NEW HAVEN TRAP ROCK COMPANY—265 Church Street, New Haven, Conn. 06510.

Acquired in 1968, this company supplies crushed stone for highway construction and other building purposes throughout southern New England, Long Island and other parts of New York, New Jersey and eastern Pennsylvania. The company has more than 250 years of reserves of trap rock; it operates four quarries, and also has asphalt plants, a paving and construction division and a concrete supply business. Its Machine Pro-

ducts Division, with a plant at Hamden, Conn., manufactures aircraft and jet engine parts.

RESEARCH & DEVELOPMENT

Ashland has an extensive and varied research program, with various phases of its operations associated with refining activities, with the work of the Ashland Chemical division and other company groups.

- Research facilities adjacent to the company's largest refinery near Ashland, Ky., are active primarily on projects associated with petroleum technology, refining processes, fuels studies and coal research.
- Development and Engineering Services is an important part of the Ashland Chemical consolidation program. Plans have been completed for a new R&D and Engineering Center at Columbus, Ohio; it is slated for completion in 1970 and will bring together scientists and technicians now employed at such Ashland research centers as Minneapolis, Houston and Fords, N. J.

OTHER OPERATIONS

- Ashland's Product Application Department, with headquarters at Ashland, Ky., offers quality assurance and technical services related to most company products, particularly regarding fuels and lubricants.
- offices in Ashland are such departments as Personnel, Employment, Data Processing, Law, Advertising, Communications, Safety, Auditing, Insurance and most accounting and finance functions. The company's purchasing and credit operations are directed from Columbus, Onio, along with chemical and oil and gas accounting and accounts payable.

PRODUCTS SOLD

Here, in general categories, are some of the products sold by Ashland and its divisions and affiliates:

Additives Diethyl, Dimethyl and other Gasoline Carbamyl Chlorides

Jet Fuel Dinitrobenzoic Acid

Lubricating Oil Esters
Anodes — Metal Ethers

Antifreeze Ethyl Bromoacetate

Asphalts Glycol Ethers
Automotive Testing and Glycols

Repairing Equipment Hexane
Auto Undercoating Hi-Sols

Batteries 8-Hydroxyquinoline and Bentonite Clay derivatives

Boats, Fiberglass Ketones
Fishing Trawlers Nickel Salts

Houseboats Nitrates

Pleasure Boats Organic Intermediates
Butane Orthochlorobenzal-

Carbon Black malononitrile (CS)
Channel Types Pentane

Channel Types Pentane
Furnace Types Pharmaceutical

Chemicals and Solvents Intermediates
Acetates Phosphates

Acids Pine Oil Alcohols Plasticizers

Aliphatic Naphthas Polybutenes
Alkalis Polyethylene Glycols

Amines Proprietary Solvents

Ammonium Adipate Silicates
Ammonium Benzoate Special Industrial Solvents

Antioxidants Sulfur Aromatic Solvents Sulphates

Benzene Surface-Active Agents
Benzoates Terpene Hydrocarbons

Bisulfides Toulene

Carbonates Triphenylsulfonium Chloride

Chlorides Weed Killer
Chlorinated Solvents Xylene

Chloroacetophenpme (CN) Chemical Polishing Solutions
Chloroform Coal Spray Oil

2-Chlorothiophene Crude Oil
Chromates Custom Chemical Production

Citrates Diesel Fuels
Cyanides Drawing Compounds

Cyclohexane
Deodorized Aliphatic

Electroplating Processes

Naphthas

Electropolishing Solutions Fatty Alcohols Fatty Nitrogens Fine Organic Chemicals Fuel Oils—All Grades Gasolines Automotive Aviation Marine Military Referee Type Natural Gasoline Specialties Indicator and Buffer Solutions Jet Fuels Kerosine Latex Laundry & Drycleaning Supplies Lighter Fluid iquified Petroleum Gas (LPG) Lube Stocks Lubricants—Oils (Aviation) Lubricants—Oils (Aviation) Lubricants—Oils (Auto) tomatic Transmission Fluid Diesel Gear Oil Greases High Detergent Motor Oil LPG Motor Oil (Trucks) Non-Detergent Motor Oil Lubricants—Oils (Industrial) Lubricants—Oils (Railroad) Melamine Mildew Proofing Agents Naphthalene Natural Gas Outboard Motor Fuels	Pipe, Plastic (ABS) Pipe, Plastic (Styrene) Pipe, Plastic (PVDC) Plastics ABS Resins Plastic Color Concentrates Polyester Resins Polyethylene Polypropylene Polystyrene Phosphating Agents and Strippers Propylene Rectifiers Resins Acrylic Alkyd Resins Hard Resins and Ester Gums Melamine — Formaldehyde Oil Soluble Resins Phenol — Formaldehyde Resorcinol — Formaldehyde Rosin Rosin Esters Urea — Formaldehyde Urethane Coatings Water-base Systems Rubber Extenders and Plasticizers Rubber, Synthetic (SBR) Latex Masterbatches Rust Preventive Compounds and Oils Tires and Tubes Tire Retreading Materials Equipment Tread Rubber
Natural Gas Outboard Motor Fuels (Homogenized) Paint Strippers Paving Asphalt	Tread Rubber Tire Installing and Repairing Equipment Transportation (Chemical & Petroleum)
Concrete Petrolatums Petroleum Pitch Pharmaceutical Intermediates	Great Lakes Tankers River Tows Vinyl Plasticizers and Stabilizers Waxes

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ASHLAND CHRONOLOGY

THE TWENTIES

Ashland Refining Company was established as a subsidiary of Swiss Oil Corporation in February, 1924. The company began operation with about 25 employees and a refinery, with 1,000 barrels a day capacity, near Ashland in Eastern Kentucky. Within months of its formation the company was profitable; during 1924 it sold about 18 million gallons of refined products for a total revenue of \$1.2 million. Expansion and modernization of facilities continued in succeeding years. At the close of 1929 Ashland Refining had greatly increased its marketing operations, and for the year had a net profit of \$206,000.

THE THIRTIES

Despite the trials of the Great Depression, Ashland continued to progress. The company purchased another refinery and an extensive Eastern Kentucky pipeline network. In 1936 the parent Swiss Oil was merged into Ashland Refining to form Ashland Oil & Refining Company, and that year net profits of the new firm reached \$678,000 on sales of \$4.8 million. Under the continuing leadership of Paul G. Blazer, who had headed Ashland Refining operations from the first, refinery capacities were greatly increased, units added and older ones rebuilt, river operations emphasized and marketing territories extended.

THE FORTIES

Vast changes came as a result of World War II and post-war industrial and commercial growth. At the beginning of the decade Ashland had capacity to produce about 9,000 barrels of petroleum products a day; by the end of the war in 1945 the company was producing almost 30,000 barrels a day. It was operating a major aviation gasoline plant, had expanded its river transportation facilities greatly, and was increasingly active in oil and gas exploration and production, drilling 260 wells in 1945 alone. In 1947 Ashland joined with other firms to form the American Independent Oil Company to develop crude oil production abroad. A major growth period began with the merger of Allied Oil Company into Ashland in 1948. In 1949 Aetna Oil Company of Louisville joined the company; assets included 220 service stations and a refinery. Freedom-Valvoline Oil Company also was acquired, with its refinery, service stations and international marketing organization. Net sales in 1949 reached \$102 million, income was more than \$9.3 million.

THE FIFTIES

The pace of Ashland's growth continued to be swift. National Refining Company of Cleveland and Frontier Oil Refining Corp., Buffalo, became part of the company. Emphasis was given the expansion of solvents and chemicals marketing. Refining capacity was pushed up; in 1950 the company was refining about 60,000 barrels of crude oil a day, while at the end of the decade the figure was 136,000 barrels a day. In 1950 there were about 2,100 employees, and 10 years later the number had increased to 4,600. In 1959 net sales exceeded another significant figure, rising above \$300 million, and the company's net worth was set at \$126 million. Ashland now was describing itself as serving "the heart of industrial America"; in this region, extending roughly from Buffalo to St. Louis and spanned by the Ohio Valley, Ashland was operating six refineries, had 26 large products terminals, pipeline networks, river and lake tanker fleets. Reaching far beyond were the company's investments in such activities as exploration and production and overseas marketing.

THE SIXTIES

In 1963 Ashland made a significant change of course with its acquisition of United Carbon Company of Houston. Subsequently its involvement in the chemical and petrochemical business deepened, both through internal growth and purchases. Among companies brought into Ashland were Catalin Corp. (1965), Fisher Chemical (1966), and the ADM Chemical Group (1967). These and other operations were combined into Ashland Chemical in 1968. During the same period the company diversified into tire marketing, highway construction and associated paving operations, construction materials supply, natural gas liquids wholesaling and transportation, fiber glass boat building. The largest capital expenditures program in Ashland history helped expand refining capacity, transportation facilities, marketing, other operations. In 1964 Ashlands net sales exceeded a half-billion dollars for the first time, reaching \$528 million. In 1968 the billion dollar sales level was surpassed.

DIRECTORS

ORIN E. ATKINS Ashland, Kentucky PAUL G. BLAZER, JR. Ashland, Kentucky REXFORD S. BLAZER Ashland, Kentucky JAMES F. BREUIL Miami Beach, Florida EARLE M. CRAIG Pittsburgh, Pennsylvania E. S. DABNEY Lexington, Kentucky J. ROBERT FISHER New York, New York W. C. FREEMAN WILLIAM H. GAMMON Columbus, Ohio R. D. GORDON, JR. Oklahoma City, Oklahoma JOHN R. HALL Ashland, Kentucky ANGUS W. McDONALD Lexington, Kentucky T. C. MORROW Houston, Texas ROBERT S. REIGELUTH New Haven, Connecticut E. W. SEATON Ashland, Kentucky ROSS K. SHOOLROY Wooster, Ohio PALMER C. TALBUTT Ashland, Kentucky JAMES W. VANDEVEER Dallas, Texas EVERETT F. WELLS Ashland, Kentucky ROBERT E. YANCEY Ashland, Kentucky

PRINCIPAL OFFICERS

REXFORD S. BLAZER Chairman of the Board EVERETT F. WELLS Chairman of the Executive Committee ORIN E. ATKINS President, Chairman of the Finance Committee ROBERT E. YANCEY Senior Vice President JOHN R. HALL Administrative Vice President ROBERT T. McCOWAN Administrative Vice President WILLIAM R. SEATON Administrative Vice President JOSEPH C. DAVIS Vice President WILLIAM H. GAMMON Vice President R. D. GORDON, JR. Vice President J. D. HUGHES Vice President ARLOE W. MAYNE Vice President and General Counsel FRANKLYN M. MOFFITT Vice President CARLTON D. WEAVER Vice President EARL W. WEAVER Vice President ROLAND A. WHEALY Vice President JOHN FRED WILLIAMS Vice President EDWARD EMRICK, JR. Treasurer-Transfer Agent ANGUS W. McDONALD Secretary KENNETH B. DENTON Auditor ARTHUR J. POINTS Controller WILBUR E. CHELLGREN Assistant Controller-Chief Accountant JOHN H. WALLACE, JR.

Deputy Controller

EXECUTIVE PERSONNEL

RAY ALTHOUSE Manager Gas Sales J. K. BARRON Purchasing Agent WILLIAM D. BASKETT, JR. Manager Trade Relations DAVID A. BELDON General Manager Traffic and Terminals G. FRED CHARLES Assistant Secretary-Attorney MACK A. CHRISTIAN, JR. General Manager Data Processing C. A. DANIELSON Assistant Controller KENNETH DAVIS Refinery Products Coordinator G. WARD DISBROW Manager River Transportation HERBERT T. DORSETT Insurance Manager ROBERT L. GRAY Manager River Operations CHARLES B. HOGG, JR. Assistant Controller D. H. JENKS, JR. Coordinator Asphalt Operations WALTER A. KETRON Manager TBA and Specialty Sales PAUL M. KINNAIRD Manager Supply and Distribution GENE W. KRAUSE Assistant Director of Personnel JOHN M. KUENDIG Management Engineering Coordinator ARNOLD M. LEAS Director Research and Development G. S. LITTON Refining Chief Engineer CHESTER C. LOVING Traffic Manager ALBERT G. MAYER
Assistant Treasurer-Transfer Agent HAROLD V. MESSICK Coordinator Product Application JAMES H. MOORE, JR. Assistant Secretary-Attorney GEORGE D. MYERS Refining Operations Advisor JOSEPH M. O'LOUGHLIN Assistant Secretary-Attorney

ERSKINE A. OWENS Manager Crude Oil Supply WILLIAM H. POWELL Assistant Controller JOHN R. ROSSON Assistant Director of Personnel FRANK J. SARGENT Manager Transportation Sales JOSEPH B. SCHLICHT Assistant Treasurer JOHN J. SHELLY Manager Asphalt Sales GEORGE W. SISLER Director Advertising-Sales Promotion PAUL L. SMITH Director of Personnel JOHN E. STONE Manager Wholesale Sales NORMAN R. TRIMBLE Deputy Director of Personnel J. P. TROUT Assistant Treasurer-Transfer Agent JOHN P. WARD Assistant Secretary-Attorney ROBERT K. WARREN Manager Economic Analysis DON C. WELLER Assistant Manager-Crude Oil Supply WALTER E. WHITT Assistant Secretary-Attorney JOHN C. WILSON Safety Coordinator WILLIS H. WINTERS Assistant Treasurer General Credit Manager RICHARD G. WRIGHT Assistant Treasurer OLIVER J. ZANDONA Refining Technical Advisor

EXECUTIVE ASSISTANTS

JAMES H. BARKER, JR. MORRISON M. BUMP HAROLD G. HOULTON CHARLES J. LUELLEN WILLIAM C. NELSON THORWELL H. PAULSEN OTTO J. SCOTT HAROLD E. SULLIVAN CLYDE M. WEBB EDWIN G. WINSTEAD ERNEST A. WYE. JR.

EXECUTIVE PERSONNEL—DIVISIONS & AFFILIATES

ALLIED OIL COMPANY

FRANK C. COLEGROVE

President

JOHN G. CLYMER

Vice President

DWAINE E. GULLETT

Vice President

ASHLAND CHEMICAL COMPANY

ROBERT E. YANCEY President WILLIAM H. GAMMON Senior Vice President

F. M. MOFFITT Senior Vice President

BURTON W. SCHROEDER

Group Vice President

GAYLE J. WELLS Group Vice President BILLY W. DAVIS

Administrative Vice President

ANTON DORFMUELLER, JR.
Vice President and General Manager, Foundry Products

nt and General Manager, Foundry Prod MORRISON M. BUMP

Vice President
JAMES C. KONEN

Vice President and General Manager, International Div.

E. A. VON DOERSTEN Vice President and General Manager, Industrial Chemicals

& Solvents Division
J. C. BURKHOLDER

Vice President and General Manager, Resins & Plastics Division
ROBERT C. FULTON
Vice President and General Manager, Chemical Products Division

ASHLAND PIPELINE COMPANY

WILLIAM T. GODDARD

President

JACK McCLURE

Vice President

CARLOS C. RABB

Vice President

THE NEW HAVEN TRAP ROCK COMPANY

ROBERT S. REIGELUTH President

THEODORE W. JONES

Vice President — Construction Services

PETER B. DUNNING

Vice President—Quarries
JOSEPH B. KITTREDGE

Vice President and Sales Manager

STEPHEN J. BARCSANSKY

Vice President — Machine Products Division

LESTER E. HINTZ Secretary and Treasurer

Secretary and Treasurer

O.K. TIRE AND RUBBER CO., INC.

FLOYD A. THOMASSON, JR.

President

JACK KVARFORDT

Vice President
PALMER C. TALBUTT

Vice President

F. H. ROSS & COMPANY

F. H. ROSS, JR.

President | Treasurer

JAMES M. ROSS Vice President | Secretary

HARVEY T. SKAGGS

Vice President

HARRY E. RICHARDSON Vice President

GOSTA ENGLUND

Vice President

WILLIAM S. HORTON

Vice President | Assistant Secretary-Treasurer

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CARL DEETER

Vice President and General Manager

FRANK CLOSSER

Vice President

JACK EICHELBERGER Vice President

BOB M. COOK

Secretary-Treasurer

VALVOLINE OIL COMPANY

EARLE M. CRAIG Chairman

EARL W. WEAVER President

WILLIAM M. CARTER, JR.

Executive Vice President

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Vice President - Sales

DON W. DETJEN

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R. F. CONARD Regional Vice President

I. M. JONES

Regional Vice President

W. O. WHITING

Vice President-Treasurer

HARRY DOWNS Secretary

C. M. HAVEY

Assistant Treasurer

General Offices

Ashland Oil & Refining Company 1401 Winchester Avenue Ashland, Kentucky 41101 Telephone (606) 324-1111

Transfer Offices

Ashland Oil & Refining Company Ashland, Kentucky The Chase Manhattan Bank New York, New York

Registrars

Second National Bank Ashland, Kentucky Morgan Guaranty Trust Company of New York New York, New York

The common stock of Ashland Oil & Refining Company is listed on the New York and Midwest stock exchanges and has trading privileges on the Philadelphia-Baltimore, Boston, Cincinnati, Pacific Coast and Amsterdam stock exchanges. The preferred stock of the company is listed on the New York Stock Exchange.

Ashland Oil & Refining Company is incorporated under the laws of the Commonwealth of Kentucky.

Ashland Oil & Refining Company is an Equal Opportunity Employer.





ASHLAND OIL & REFINING COMPANY Ashland, Kentucky 41101